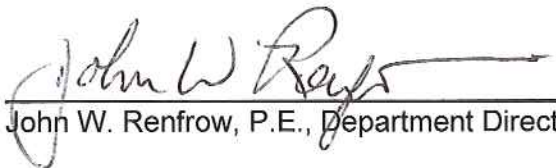




Miami-Dade Water and Sewer Department Business Plan

Fiscal Years: 2012 and 2013
(10/1/011 through 9/30/13)

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DEPARTMENT OVERVIEW

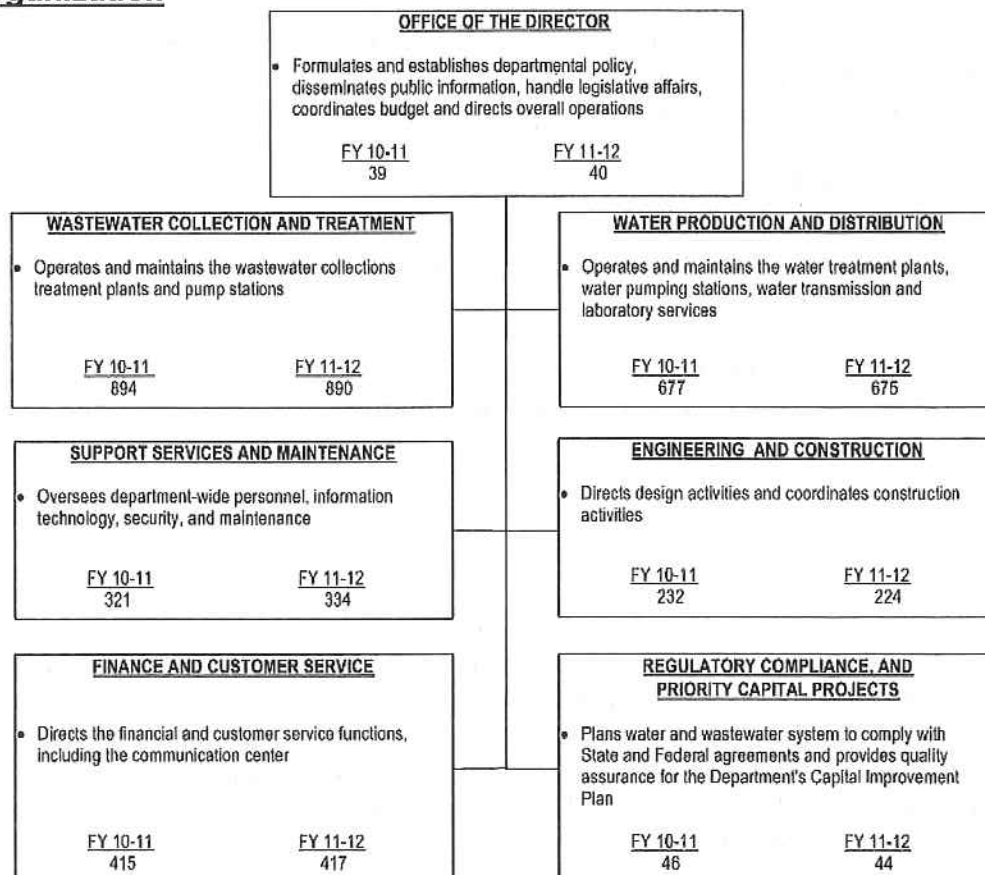
Department Mission

The Miami-Dade Water and Sewer Department is committed to serving the needs of Miami-Dade County residents, businesses, and visitors by providing high-quality drinking water and wastewater services while providing for future economic growth via progressive planning; implementing water conservation measures; safeguarding public health and the environment; and providing for continuous process improvements and cost efficiencies.

Department Description

Miami-Dade Water and Sewer Department's (MDWASD) principal responsibilities are to provide potable water and wastewater services. This includes water supply, transmission, treatment, distribution, conservation, and wastewater collection, treatment, disposal, and water reclamation. MDWASD is one of the largest public utilities in the United States, serving approximately 422,000 retail water customers and 340,000 retail sewer customers, and 15 wholesale (municipal) water customers and 14 wholesale (13 municipal and the Homestead Air Force Base) sewer customers on a daily basis. The total combined population served at the retail and wholesale level is about 2.3 million residents.

Table of Organization



Strategic Alignment Summary

The Department is aligned to the following Strategic Plan goals and objectives:

NI2: Effective Infrastructure Services

NI2-1 Provide adequate potable water supply and wastewater disposal

ED4: Entrepreneurial development opportunities within Miami-Dade County

ED4-2 Streamline the business permitting processes

ED5: Revitalized communities

ED5-1 Provide adequate public infrastructure that is supportive of new and existing businesses

ED5-2 Develop urban corridors (TUAs, CRAs, Enterprise Zones, NRSAs) as destination centers

GG1: Friendly Government

GG1-1 Provide easy access to information and services

GG1-2 Develop a customer-oriented organization

GG2: Excellent engaged workforce

GG2-2 Develop and retain excellent employees and leaders

GG3: Efficient and effective service delivery through technology

GG3-1 Ensure available and reliable systems

GG3-2 Effectively deploy technology solutions

GG4 Effective Management Practices

GG4-1 Provide sound financial risk management

GG4-2 Effectively allocate and utilize resources to meet current and future operating and capital needs

GG6: Green Government

GG6-1 Reduce County government's greenhouse gas emissions and resource consumption

Our Customer

MDWASD serves approximately 422,000 retail water customers and 340,000 retail sewer customers, and 15 wholesale (municipal) water customers and 14 wholesale (13 municipal and the Homestead Air Force Base) sewer customers on a daily basis. The total combined population served at the retail and wholesale level is about 2.3 million residents. Developers are also customers as they seek development permits that include water and sewer capacity and infrastructure. Customers internal to the County include all departments with facilities that are served by MDWASD.

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The most important needs of our customers are to obtain potable water and dependable wastewater services at the lowest available cost. Resident Satisfaction Surveys performed in 2008 by ETC Institute rated MDWASD at a high satisfaction level, 77% were satisfied or very satisfied with the overall quality of drinking water and 75% were satisfied with the quality of sewer services. The report also noted that the satisfaction level was higher for MDWASD than other large communities in the United States.

Miami-Dade County has undertaken surveys of customers from the development, construction, building, and related industries. The surveying mostly takes place at the Miami-Dade Permitting and Inspection Center (MDPIC) in west Miami-Dade. This center, known as the "MDPIC," is a one-stop location for the building industry to seek permits and as such, the surveys taken there are based on voluntary participation and usually cut across various departments. MDWASD's New Customer Division has been part of the customer service improvement effort at the MDPIC. During FY 2010-11, 94% of respondents at the MDPIC location, perceived that MDWASD provided an "Often Excellent" customer service, compared to 85.4% who considered the same during FY 2009-10. In addition, during FY 2010-11, customer service surveys conducted at MDWASD'S New Business Office (LeJeune) indicated that 98% of survey respondents rated services as "Excellent" at this location, compared to 94% of survey respondents during FY 2009-10.

Customer satisfaction improvements are related to the feedback action plan and business processes modification implemented to reduce the overall waiting time. To address customer service demands created by the urban development trend in the downtown corridor, a New Business Office in the Overtown Transit Village Building (OTV) has serviced customers since FY 2009-10. Business process modifications and improvements made as a result of the surveys, include: new tools added to educate customers on required documents for submitting applications, continued training of New Business Processors on how to implement this tool, adding a drop-off box for accelerated plans review, new offices to service customers, and providing a survey drop box at all New Business offices.

In an effort to be proactive and provide information to retail customers, a number of customer service initiatives have been implemented. The Department distributed a number of door hangers (notice) to advise customers of upcoming work, customer service issues, and emergency situations. The door hangers were redesigned to be more customer-friendly and responsive. Additionally, a new high bill notification letter was created to proactively advise customers of a potential problem and changes were made in the high bill policy to provide financial relief in extreme circumstances. This goes hand in hand with the 24-hour customer information hotline created to provide up-to-date information on departmental programs and services. To further assist, the Retail Customer Division also investigates unusually high water consumption prior to a bill being released. This includes a representative contacting the customer advising them of the high water consumption and scheduling an appointment with the customer and plumbing expert at the residence to investigate the cause of the high bill.

In order to assist tenants when the landlord fails to pay the water bill, the Bridge Account Ordinance Number 10-88 was implemented in May 2011. A "Bridge Account" is an account set up for tenants of a building containing three or more dwelling units, that pay for water and sewer service through their rent, but the owner has failed to pay the bill and the service is subject to termination. The order provides the tenants time (six months) to pursue applicable

legal remedies, find other living arrangements, or provides the customer enough time to resolve the issue and reestablish water service. Most families cannot come up with the necessary funds to relocate at the spur of the moment, so this provides the tenants with time to make plans and or seek assistance.

The Customer Contact Centers are available for walk-ins and to handle customer transactions. In an effort to improve the customer experience, a series of improvements were made at the centers. This includes a new Customer Contact Coordinator to make initial contact and assess the customer's request and adding the option of using one of the kiosks in the center to in order to conduct business online. Improved customer signage and public notification; "I Love Tap Water" branding and the creation of customer feedback forms have also enhanced the customer experience. Customer feedback cards are used to assess MDWASD's strengths, weaknesses, and then adjust the business process or training of staff with the focus of improving the customer experience.

The website has also become a central point for Customer Service activities. As such, staff worked to redesign the external website to improve customer contact and transactions. Furthermore, informational videos (currently posted on the Miami-Dade County portal and YouTube) were created to promote the high quality tap water delivered and an instructional video was produced on how to read your water meter.

MDWASD provides direct customer outreach and advertising via radio, television, print, transit bus benches, publications, and the internet about water quality, conservation programs, alternative water supplies, and customer service. The department participates in various local events such as showerhead exchanges, targeted group and school meetings, and various commissioner-sponsored events.

MDWASD builds positive relationships with municipalities and wholesale customers through industry meetings, face-to-face interaction, training sessions, and business process reviews. As part of the performance improvement efforts, the department developed a Customer Focus Committee to identify customer needs, evaluate our performance, and implement initiatives to improve customer satisfaction. As a result, in December 2010, the Department developed a customer-complaint tracking system. The database is a repository for customer complaint data that is utilized to identify areas for improvement and implement proactive strategies.

KEY ISSUES

- The age of more than half of the existing water and sewer infrastructure, including its six major treatment plants and more than 13,000 miles of pipelines, exceeds fifty years. For many years, maintenance has been deferred to avoid short term cost impacts, resulting in expensive equipment failures such as water and sewer main breaks, plant failures, and decreased efficiency of operation. In some instances, fines and penalties have been imposed by regulatory agencies as a result of these failures. The dramatic failure of large diameter water and sewer mains during the past two years requires dedicated attention to the evaluation, repair, and replacement of this critical infrastructure. Fines and penalties are anticipated to rise as regulatory agencies

are determining that the causes of recent failures are the result of inadequate maintenance. The Department has identified more than \$6.8 billion of water and sewer main replacement work that is needed to address deteriorated and inadequate piping throughout the system.

- Regulatory requirements in the form of consent decrees, agreements, permit conditions, and statutory changes continue to create a series of unfunded mandates that can only be met through extensive capital investment. Chief among these are state laws requiring abandonment of two ocean outfalls for treated wastewater disposal, and associated requirements for wastewater reclamation and reuse, a federal consent decree requirement for managing peak wastewater flows, restrictions on water quality standards compliance with requirements of Operation and Maintenance of Public Water Systems, and on use of the Biscayne aquifer to meet future water supply needs. Efforts are underway to reduce the cost burdens of these requirements, but even a more cost-effective approach has significant cost and rate implications. Currently a new federal consent decree is under discussion with the Environmental Protection Agency to focus on needed wastewater system upgrades and maintenance to reduce pipeline and plant equipment failures. This consent decree will address capacity, management, operations and maintenance (CMOM) issues. In addition, the Department has to be in compliance with new licensing requirements for operation and maintenance of the water distribution system.
- While economic conditions are down, there are signs of increased development activity, particularly in the downtown area. This will require greater attention to adding system capacity to stay ahead of growth needs and to avoid localized building restrictions where sewer pump stations do not remain in compliance with state and federal operational standards. An improving economy is likely to increase the cost of construction for needed facilities and increase the competition for staff resources. Trained staff will be needed to keep up with the increased activity.
- Staff reductions of 8% of the workforce in FY 2010-11 have severely limited the Department's ability to provide adequate customer service, to avoid overtime to meet operational needs, and to be prepared to operate new facilities, such as the High Level Disinfection project at the South District Wastewater Treatment Plant when all phases are anticipated to be completed in FY 2012-2013. Addressing the infrastructure, regulatory, and capacity needs of the system will also have staffing implications. Also, the alarming number of vital staff, executives, and management preparing for retirement needs to be addressed to ensure appropriate transfer of knowledge.
- Increasing the efficiency of all functions that depend on the efficiency of other departments can save substantial time and resources. This is particularly the case with procuring equipment and services unique to operations. Two successful examples of approaches that have demonstrated improved efficiencies are capital projects managed under the expedited process and the use of pre-qualified consultant and contractor pools to limit the time required to address emergency situations and for smaller construction projects. Meeting MDWASD's infrastructure needs and regulatory requirements implies the need for greater efficiencies in project implementation and

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more intensive project management to maintain schedules and quality control as the number of projects increases to meet regulatory schedules.

- Systems automation for most aspects of operations, including budget and accounting, customer information, geographic information systems, enterprise asset management, system control data, project tracking, security, and metering requires constant attention, training, and funding. This is particularly critical as many long term Department employees retire and take with them their extensive system knowledge that needs to be captured and made accessible throughout the organization. These systems require continuous maintenance and training to be effective.
- Adequate funding and appropriate rates are required in order to implement the Business Plan. The regulatory requirements, including the 20-Year Water Use Permit conditions, state mandated ocean outfall abandonment requirements, consent decrees, other regulatory requirements, and the need to replace the aging infrastructure, require significant increases in funding. This funding is dependent on the water and sewer rates, which rely solely on the customers who have benefited from low rates for many years.
- Additionally, the Department needs to maintain and moderately replenish non-required reserve levels in order to reduce the cost of issuing debt for all capital needs. Rating agencies have expressed concerns that the Department will not be able to increase rates to meet future demands. Also, the rating agencies could see a decline in fund balance (reserves) as a negative indicator and may revise the Department's debt outlook or bond ratings. Rating agencies already noted that the lower the level of reserves, the greater the risk that the Department will be unable to respond to unexpected events.

PRIORITY INITIATIVES

- Ensure compliance with the revised 20-year Water Use Permit (WUP) including, but not limited to, the High Level Disinfection (HLD) process at the South District Wastewater Treatment Plant (SDWWTP), the Northwest Wellfield Surface Water Treatment Plant (WTP) for the Hialeah/Preston service area, the alternative water supply (AWS), water conservation, water loss reduction projects, wastewater collection system Peak Flow Management Study, groundwater studies for the North and SDWWTPs, Infiltration and Inflow Program, Pump Station Optimization Program (PSOP), the comprehensive water and wastewater master plan to address the 2008 State Outfall Legislation, and the Cross Bay Line Relocations project at Government Cut.
- Establish a bond-funded program specifically targeting critical infrastructure replacement to reduce the instances of pipeline and plant component failures that can endanger public health, create economic disruption, and substantially increase the cost of facility management.

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- Ensure implementation of the projects in the Multi-Year Capital Plan to provide adequate facilities to meet capacity requirements and infrastructure renewal and replacement as well as the support systems associated with implementation.
- Implement a "Water and Sewer Infrastructure Service Improvement Plan" to encourage and support applicable homeowners notified of required connection by County Code. Developers installing services and laterals will be compensated by a set fee. This program supports the Permitting, Environment and Regulatory Affairs (PERA) efforts to reduce well intrusions, provides savings to homeowners required to connect to the water and/or sewer system, improves water and sewer infrastructure's operation, and avoids future pavement cuts and traffic disruptions at the time the customer request connections.
- Integrate development work and utility coordination with roadway agencies to minimize pavement cuts and traffic disruption in residential neighborhoods and in the downtown area.
- Ensure implementation of key support systems such as the Supervisory Control and Data Acquisition System (SCADA), Customer Care and Billing (CCB), Mobile Workforce Management (MWM), Enterprise Asset Management System (EAMS), Automated Meter Reading (AMR), Advanced Metering Infrastructure (AMI), Meter Data Management (MDM), Geographic Information System (GIS), and Project Control Tracking System (PCTS).
- Implement a comprehensive staffing and succession plan to mentor, train, and transfer historical knowledge to new employees before retirement of existing staff and to ensure adequate staffing of the HLD facility.
- Continue to implement efficiency initiatives, sustainability measures, process improvements, and other performance excellence initiatives through direct engagement with frontline staff to facilitate implementation of the business plan, building on the successful experience of the POWER (Partnership Optimizing WASD's Efficiency and Re-Engineering) program. This program has documented more than \$36 million in savings resulting from employee-driven process improvements since 1998.

FUTURE OUTLOOK

3 to 5 Year Financial Outlook

In order to implement the Business Plan, it is evident that the Department will need to obtain adequate funding to meet all the regulatory requirements, including the 20-Year WUP and conditions, state mandated ocean outfall legislation, consent decrees, other regulatory requirements, and the need to rehabilitate and replace aging infrastructure. The impact of the regulatory requirements and aging infrastructure will significantly increase the cost of water and sewer services for both retail and wholesale. Customers may see a significant increase in water and sewer rates; current estimates project the increases will range between 100% to

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over 250% of the current rates within the next 10 years. Future rate increases contemplate increases above the Maintenance Index in order to fund the Multi-Year Capital Improvement Plan estimated at \$6.8 billion in capital projects, increases in operating costs, replacements in aging infrastructure, and to replenish reserves levels. The 5-Year Financial Outlook assumes the need for potential double-digit rate increases so the Department is able to address these challenges. A maintenance index rate increase will be proposed for FY 2013-14 in order to continue to expedite repairing existing infrastructure needs and additional regulatory requirements and to meet anticipated increases to operating cost.

For FY 2011-12, the Board of County Commissioners (BCC) adopted a flat retail rate despite the experience of other water and sewer utilities as reflected in the Maintenance Index of 7.4 percent, based on the United States Department of Labor, Bureau of Labor Statistics, 2010 Consumer Price Index (CPI), All Urban Consumers, Water and Sewerage Maintenance U.S. City average. Rate increases are critical to fund plant and infrastructure (pipe) rehabilitation, replacements and upgrading of undersized water mains throughout the water distribution system to meet utility standards. The water system infrastructure averages 45 years with the oldest pipes in the system dating back to the mid 1920's. Similarly, the wastewater infrastructure averages 55 years with the oldest pipes in the system dating back to 1930s.

MDWASD has indentified the need to replace or rehabilitate 2,594 miles of the total 5,758 miles of pipes. This is 45% of the infrastructure, at an estimated cost of \$6 billion. Similarly, the department has identified 160 miles of sewage pipes that needs to be replaced or rehabilitated at an estimated cost of \$1 billion. The Central District Wastewater Treatment Plant, built in the 1950's, processes the largest volume of sewer flows for the Department on a daily basis; the plant's age and approximation to the Atlantic Ocean continues to require extensive equipment and structural repairs to meet operational demands and regulatory requirements.

Additional resources will be required to operate the HLD process at the SDWWTP and the Reverse Osmosis Water Plant. Initial operational costs for both projects, including the hiring of operational staff are included in FY 2011-12. The Departments Multi-Year Capital Plan is proposing to issue \$198 million of new bonds in FY 2013-14 (April 2014), \$419 million in FY 2014-15 and \$399 million in FY 2015-16. In coordination with the Office of Management and Budget and the Finance Department, and the Department will develop a payment schedule that will smooth out the effect of this financing through the life of the bonds.

As is customary during the annual budget process, the Department will be looking for innovative ways to reduce the fiscal impact to the customers. The Department has started a significant effort at looking for competitive approaches to addressing these needs in the most cost effective manner while maintaining regulatory compliance. The Department continually reviews both its organizational structure and related business process in order to review costs and/or increase revenue collection. As these approaches are identified, the Department, along with the Office of Management and Budget and the Mayor's Office, will present the proposals to the BCC for final determination.